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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,597	02/06/2004	Kuei-Chi Kuo	021653-001200US	8967

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TOWNSEND AND TOWNSEND AND CREW, LLP  
TWO EMBARCADERO CENTER  
EIGHTH FLOOR  
SAN FRANCISCO, CA 94111-3834

EXAMINER

THOMAS, TONIAE M

ART UNIT PAPER NUMBER

2822

DATE MAILED: 09/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/773,597

Applicant(s)

KUO, KUEI-CHI

Examiner

Toniae M. Thomas

Art Unit

2822

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 July 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This action is a first Office action on the merits of Application Serial No. 10/773,597. Currently, claims 1-20 are pending.

***Election/Restrictions***

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-16, drawn to a product, classified in class 430, subclass 4.
- II. Claims 17-20, drawn to a process of using, classified in class 216, subclass 41.

3. The inventions are distinct, each from the other because of the following reasons: Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the process for using the product as claimed can be practiced with another materially different product. For example, the claimed photomask comprises: a first guard ring structure, and a second guard ring structure surrounding the first guard ring structure and having at least one fuse structure. The process for using the product as claimed can be practiced with

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a photomask including just a guard ring structure having at least one fuse structure.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Richard T. Ogawa on 26 July 2005 a provisional election was made with traverse to prosecute the invention of Group II, claims 17-20. Applicant in replying to this Office action must make affirmation of this election. Claims 1-16 have been withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### ***Claim Objections***

6. Claims 17-20 are objected to because of the preamble. The preamble recites a method for manufacturing integrated circuit devices. However, the limitations recited in the body of the claim are drawn to a method for using a mask. Appropriate correction is required.

### ***Drawings***

7. Figures 1-3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

8. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference number mentioned in the description: reference number "101" (page 4, line 28).

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9. The drawings are objected because the features in figure 1 are not distinguishable.

10. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application.

Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fosnight et al. (US 6,216,873 B1) in view of Lee (US 2003/0013258 A1).

In the "Background of the Invention," Fosnight discloses a conventional photomask (also known as a "reticle") used in an operation for the manufacture

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of semiconductor integrated circuits and a process for making the photomask (col. 1, line 23 - col. 2, line 49), wherein the process for forming the photomask is carried out in a clean room environment (col. 1, lines 46-57). The process for forming the photomask comprises manually transferring the photomask from one processing station to another, wherein static electricity is accumulated on the photomask during the handling (col. 2, lines 30-37). The photomask is used in a lithography process (col. 1, lines 25-40).

Fosnight does not teach that the photomask includes a guard ring structure having at least one fuse structure, such that a portion of static charge is discharged to the fuse.

Lee discloses a photomask 86 used for the manufacture of semiconductor integrated circuits (see figs. 3, 4 and accompanying text), wherein the photomask comprises: an active area 88, and a chrome coated area 90 (fig. 4 and par. 49, lines 3-5)<sup>1</sup>; and an electrostatic discharge (ESD) protection structure. The ESD protection structure, in turn, includes an active charge sinker 92 (fig. 4 and par. 49, lines 5-7). The active charge sinker 92 shown in figure 4 is identical to the active charge sinker 48 shown in figure 3 (par. 49, lines 9-11). As figure 3 shows, the active charge sinker comprises fuse 58 (par. 43). Static charge on the chrome coated area 90 of the photomask is discharged to the active charge sinker, which comprises the fuse 58 (par. 48, lines 1-5 and par. 48, lines 14-21), while maintaining the active

area 88 of the photomask free from static energy damage characterized by a voltage of 1000 V, as recited in claim 19, and a voltage greater than 3000 V, as recited in claim 20 (par. 48, lines 5-9).<sup>2</sup>


It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify Fosnight by providing an ESD protection structure, as taught by Lee, because the ESD protection structure protects the photomask from electrostatic charge damage (Lee - par. 48, lines 14-16).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toniae M. Thomas whose telephone number is (571) 272-1846. The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian can be reached on (571) 272-1852. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TMT  
27 September 2005



TONIAE M. THOMAS  
EXAMINER  
SEP 27 2005

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<sup>1</sup> The chrome coated area of the photomask is interpreted to represent a guard ring surrounding area 88 of the photomask.

<sup>2</sup> The claim language does not preclude a scenario in which the static charge is discharged to circuit including a fuse.